PROJECT DESCRIPTION

for

OCOTILLO WELLS SOLAR FARM

OCOTILLO WELLS, CALIFORNIA

3300-12-004 (MUP); 3910-12-12-001 (ER)

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OCOTILLO WELLS SOLAR FARM

PROJECT LOCATION

The lands that comprise the Project site are located just east of the community of Ocotillo Wells, California, within northeastern San Diego County; refer to Figure 1, Regional/Local Vicinity Map, and Figure 2, Aerial Photograph. The proposed Project would affect a portion of two parcels totaling approximately 440 acres, located approximately 0.4 mile east of Split Mountain Road and approximately three miles south of State Highway 78 (SR 78).

PROPOSED PROJECT

The Project proponent is preparing an application for development and operation of a photovoltaic (PV) or concentrated photovoltaic (CPV) solar farm to be located on privately-held lands near Ocotillo Wells. The Project would require approval from the County of San Diego for a Major Use Permit (MUP) to allow for the construction, operation, and maintenance of such facilities for the long-term generation of clean renewable energy from solar power.

The County Assessor Parcel Numbers (APNs) that comprise the Project area for the main facilities are 253-390-57 and 253-390-58, totaling 440 acres (approximately 280 acres and 160 acres, respectively); however, the proposed Project development footprint would total approximately 338.1 acres. The development footprint for the Project includes approximately 336.4 acres of the 440 acres, plus approximately 1.74 acres of disturbance for offsite improvements for access purposes (access road/easement from Split Mountain Road). The remaining 103.6 acres on the two affected parcels would remain in their natural state. Gildred Building Co., LLC currently owns APN 253-390-57 and APN 253-390-58.

To allow for flexibility in the ultimate type of technology utilized for construction of the solar farm, four variations of PV and CPV alternative technology systems are being considered by the Project applicant. The proposed development footprint would remain the same with any of the technology scenarios selected. In addition to the solar panels, development would include construction of two 10,000-gallon water storage tanks and an operations/maintenance building with an onsite septic system (approximately 1,040 s.f., height of 15-16 feet).

Additionally, a substation (development footprint of approximately 62,500 square feet, maximum height of 35 feet) that would be dedicated to the Imperial Irrigation District (IID) and a private switchgear yard (development footprint of approximately 96,750 s.f.) with a control house are proposed; however, only a limited portion of these areas would support physical structures. Refer to Figures 3A to 3F, for illustration of the Major Use Permit Plot Plan(s) and Elevations/Details. The Dual-Axis Tracker System and the Dual-Axis Tracker Units, as described in detail below, would also require installation of six 125kW emergency generators located on a 12-foot by 20-foot concrete pad within the interior of the development area to enable the solar panels to be rotated to the stow position, in the event that power from the local utility is lost or when high winds occur.

The energy generated by the Project with any of the four alternative technology systems would be transmitted via a central overhead 34kV collection line to the substation proposed in the northeast corner of the site, adjacent to an existing 92 kilovolt (kV) "R-Line" that runs through the northeastern corner of the affected parcel. The solar farm is proposed to be connected to the R-Line with an interconnection agreement with the IID. The R-Line runs aboveground and ultimately connects to the existing San Felipe Substation, located approximately 2.1 miles to the northwest of the point of interconnection (POI). Refer to the discussion under *Imperial Irrigation District*, below, for additional discussion.

Each of the four layouts would also require construction of a number of equipment pads to support small enclosures to house the associated inverters/transformers/switching gear. The total number of required equipment pads within the development footprint, as well as the combination of components that each would support, would vary based upon the technology system selected.

The ultimate arrangement/number of solar panels, equipment pads and structures, and internal access roads are shown on the MUP Plot Plans prepared specific to each of the proposed solar technology systems; refer to Figures 3A through 3F, Major Use Permit Plot Plan(s), and Figure 4, Preliminary Grading Plan; however, each of these layouts are subject to modification at final engineering design. Each of the four solar technology systems being considered is described in brief below.

Fixed-Axis Rack System

The Fixed-Axis Rack System would have an anticipated production capacity of approximately (up to) 42 MW (alternating current - AC). The Project design would consist of a series of PV solar panels on a fixed-axis rack system, installed on rack pilings of 4-6 inch diameter metal I-beams or 4-inch diameter round pipe.

The solar panels would be oriented along an east-west axis with the panels generally facing to the south to maximize solar absorption during the hours of daylight. The panels would be rack-mounted in a two-panel system (one panel mounted above a second panel). Panels (rack system) would measure approximately nine feet wide and approximately 51 feet in length, with a maximum of 10 feet in height, as measured from ground surface to the top of the panel.

Spacing between each row along the north/south axis would measure approximately 19 feet center to center. Up to 42 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the required inverters/transformers; refer to Figure 3B, Major Use Permit Plot Plan – Fixed-Axis Rack System.

A series of north-south (spaced approximately every 640 feet) and east-west (spaced approximately every 465 feet) running all-weather fire access roads, of minimum 24-foot width (covered with a binding agent), would be provided to meet design requirements of the San Diego County Fire Authority. These roads would also serve for purposes of maintenance.

Single-Axis Rack System

The Single-Axis Rack System would have an anticipated production capacity of approximately (up to) 50 MW (alternating current). The Project design would consist of a series of single-axis tracking PV solar panels supported on driven pier footings.

The solar panels would be aligned in north/south rows and would face to the east in the morning and to the west in the evening hours, tracking the sun along the vertical axis to maximize solar absorption during the hours of daylight. The panels would be rack-mounted, measuring approximately seven feet in width and 90 feet in length (panel array), with a maximum height of up to 9.5 feet, as measured from the ground surface to the top of the panel.

Spacing between each row along the north/south axis would be approximately 17 feet center to center. Up to 43 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the required inverters/transformers; refer to Figure 3C, Major Use Permit Plot Plan – Single-Axis Rack System.

A series of north-south (spaced approximately every 700 feet) and east-west (spaced approximately every 390 feet) running all-weather fire access roads, a minimum 24-foot width (covered with a binding agent), would be provided, per design requirements of the San Diego County Fire Authority. Additionally, a series of 10-foot wide unsurfaced roads would be provided within the solar field for purposes of maintenance.

Dual-Axis Rack System

The Dual-Axis Rack System would have an anticipated production capacity of approximately (up to) 45 MW (alternating current). The Project design would consist of a series of CPV solar panels installed on a dual-axis rack system. The solar arrays would be constructed on pile-driven pier footings.

The solar panels would be aligned in rows running along a north-south axis and would rotate to face the east in the morning and the west in the evening hours, tracking the sun along the vertical and horizontal axes to maximize solar absorption during the hours of daylight. As a dual-axis system, the panels could also be rotated along the north-south axis to change the angle of the panel, depending on the time of year, in order to maximize the absorption of sunlight.

Each row would contain a system of up to four arrays. Each array of panels would support a grouping of eight "paddles," with each paddle supporting eight modules of solar collectors. Each array would measure approximately 18.5 feet in width and 80 feet in length (panel array). The total height of the arrays would be approximately 23 feet in height, as measured from ground surface to the top of the panel.

Spacing between each row along the east-west axis would be approximately 53 feet center to center. An estimated 46 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the breakers/transformers; refer to Figure 3D, Major Use Permit Plot Plan – Dual-Axis Rack System. Additionally, construction would include installation of six 125kW emergency generators

(each located on a 12-foot by 20-foot building pad) to provide a reserve source of power in the case of power failure. The generators would provide energy to rotate the tracker units to the stow position in the event of an emergency or high winds.

A series of east-west running all-weather fire access roads, of minimum 24-foot width and unsurfaced (covered with a binding agent), would be provided approximately every 330 feet between the horizontal rows of panels, per design requirements of the San Diego County Fire Authority. North-south running fire access roads would be spaced approximately every 610 feet. Additionally, a series of unsurfaced roads would be provided within the solar field for purposes of maintenance.

Dual-Axis Tracker Units

The Dual-Axis Tracker Units would have an anticipated production capacity of approximately (up to) 54 MW (alternating current). The Project design would consist of series of CPV solar trackers installed on driven 24" to 30" pier footings/concrete foundation system.

The CPV trackers would be aligned in north/south rows and would face to the east in the morning and to the west in the evening hours, tracking the sun along both the horizontal and vertical axes to maximize solar absorption during the hours of daylight. Each tracker would measure approximately 25 feet wide and 48 feet in length, with a maximum height of 30 feet, as measured from ground surface to the top of the unit.

The series of CPV trackers would be spaced approximately 82 feet on-center east/west, and 69 feet on-center north/south. An estimated 40 individual equipment pads (approximately 15 feet by 40 feet, or 600 square feet in size) would be constructed within the solar array field to support the required inverters/transformers; refer to Figure 3E, Major Use Permit Plot Plan – Dual-Axis Tracker Units. Additionally, construction would include installation of six 125kW emergency generators (each located on a 12-foot by 20-foot building pad) to provide a reserve source of power in the case of power failure. The generators would provide energy to rotate the tracker units to the stow position in the event of an emergency or high winds.

A series of north-south running all-weather fire access roads, of minimum 24-foot width and unsurfaced (covered with a binding agent), would be provided approximately every 310 feet between the vertical rows of panels, per design requirements of the San Diego County Fire Authority. East-west running fire access roads would be spaced approximately every 590 feet. Additionally, a series of north-south running unsurfaced roads would be provided within the solar field for purposes of maintenance.

GENERAL PLAN LAND USE DESIGNATIONS AND ZONING

General Plan land use designations and zoning for the affected parcel are given in Table 1, *Existing General Plan Land Use / Zoning / Regional Category*, below. No changes to either the existing General Plan land use or zoning are proposed with the Project.

TABLE 1
EXISTING GENERAL PLAN LAND USE / ZONING / REGIONAL CATEGORY

Assessor Parcel Number	Approximate Acreage*	General Plan Land Use Designation	Zoning
253-390-57	280*	(RL-80) Rural Lands	General Rural Use (S92) "D" Setback Designator / "G" Designator for Building Height No Special Area Regulations
253-390-58	160*	(RL-80) Rural Lands	General Rural Use (S92) "D" Setback Designator / "G" Designator for Building Height No Special Area Regulations

* The Project would be limited to approximately 336 .4 acres on the two affected parcels which total 440 acres.

PURPOSE AND NEED

The Project is intended to allow for the installation and operation of an electrical generation facility and represents an opportunity to provide residents of Ocotillo Wells and the greater surrounding area with clean source of electrical power from renewable sources that would supplement energy currently supplied by the existing power grid, thereby reducing the potential for power shortages to occur and decreasing demands on the capabilities of the existing distribution system.

EXISTING CONDITIONS

The Project site is located within the community of Ocotillo Wells, which is a relatively small desert community offering limited residential or commercial uses. A number of trailer parks and small commercial uses are present in areas along State Highway 78. Most visitors to the area come to visit the Anza Borrego Desert State Park and Anza Borrego Desert State Wilderness Area, located to the north, west, and south of the community, as well as the Ocotillo State Vehicular Recreation Area, located approximately 3.5 miles to the north of the site across State Highway 78, which is utilized for off-road recreational purposes.

The proposed MUP area is generally vacant, undeveloped land. Two (abandoned) mobile homes and several supporting miscellaneous outbuildings were formerly located on the 160-acre parcel; however, all onsite structures, with exception of a well house associated with an existing groundwater well (currently not in use), have been removed.

Onsite vegetation largely consists of Sonoran creosote brush scrub, desert saltbrush scrub, Sonoran wash scrub, and unvegetated playa. A large wash (generally dry for the majority of the year) traverses the site from northeast to southwest. Topography of the site is generally flat, with limited areas of varied topography. No steep slopes, hillsides, or areas prone to landslide or subsidence occur onsite within the proposed MUP area.

The Project site is bordered directly to the south by the Anza Borrego Desert State Park. Additionally, the Ocotillo Airport is located approximately 4.4 miles to the northwest of the

Project site, across State Highway 78; however, the site is not located within the Airport Influence Area boundary, and therefore, no height or other such restrictions relative to the Airport would apply.

ACCESS / CIRCULATION

Construction Access

All materials for Project construction would be delivered to the site by truck. The majority of truck traffic would occur on designated truck routes and/or major streets (e.g. Split Mountain Road). Access to the site during construction would be provided from Split Mountain Road via a 24-foot wide all-weather road, graded to 28 feet, over a 40-foot wide private access/utility easement extending eastward (approximately 1,890 linear feet) to the southwestern corner of the MUP area.

Traffic resulting from Project construction activities would be temporary (approximately 11 months) and may occur along area roadways as workers and materials are transported to and from the Project area. If directed by the County, the Project applicant would prepare a Traffic Construction Mitigation Plan to ensure that circulation on roadways utilized during construction is not adversely affected and that public safety is maintained.

Long-Term Access and Onsite Circulation

No offsite roadway improvements are proposed along Split Mountain Road. As stated above, long-term primary access to the Project site would be provided from Split Mountain Road via a 24-foot wide all-weather road over a 40-foot wide access/utility easement extending eastward to the southwestern corner of the MUP area. A driveway taper will be required where the proposed Project access meets Split Mountain Road. Interior access would be provided by a series of 24-foot wide fire access roads and/or fire access and perimeter loop roads (depending on the type of solar system selected) in accordance with County of San Diego Fire Standards, that would be maintained to provide a fire buffer as well as to facilitate onsite circulation for emergency vehicles. The interior access roads would be designed and maintained to support the imposed loads of fire service apparatus (not less than 50,000 lbs) and would have an approved surface so as to provide all-weather driving capabilities. The interior fire access roads would be constructed to facilitate a maximum fire hose pull of approximately 160 feet. In addition, the Project includes east/west running fire access roads for connectivity and circulation. The purpose of the interior fire access roads is to allow for access of fire service apparatus throughout the Project site and in order to reach the inverter/transformer units. In addition, a system of internal roadways would be provided between the running rows of solar panels to allow for routine maintenance.

In order to control dust during the life of the Project, a non-toxic, biodegradable, permeable soil-binding agent or permeable rock material would be applied to all disturbed or exposed surface areas as follows: a) A permeable soil-binding agent suitable for both traffic and non-traffic areas shall be used. These agents shall be biodegradable, eco-safe, with liquid copolymers that stabilize and solidify soils or aggregates and facilitate dust suppression; or, b) Alternatively, a permeable rock material consisting of either river stone decomposed granite or gravel could be placed in a

thin cover over all exposed surface area in-lieu of the binding agent referenced above. The binding agent would be reapplied approximately every two to three years for maintenance purposes.

LIGHTING

Limited Project lighting would be installed to allow for ongoing maintenance and security. Low-level lighting (100 watt) would also be installed at the main entry gate, switchgear yard and substation entrances, control room, and operation buildings to facilitate safety and access. Illuminated signage at the Project entrance and each inverter station that notes the location and identification number of each electrical grid disconnect and circuit breaker would also be installed. All lighting would be operated manually or activated via motion sensors, and would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent ownerships and would conform to County of San Diego outdoor lighting requirements.

GRADING

Although the majority of land surface within the MUP area is flat, portions would be graded to allow for installation of the solar panels and associated facilities. An estimated 338 acres would be brushed and cleared of vegetation. Within this area, overall Project grading would vary depending upon the type of solar technology installed, but is estimated to require a maximum of approximately 370,000 cubic yards (c.y.). This total would include approximately 20,000 c.y. of balanced cut and fill, in addition to removal and recompaction of approximately 350,000 c.y. of soil (disturbance to a depth of eight inches over the 338-acre development area) to prepare the site for installation of the solar facilities; refer to Figure 4G, Preliminary Grading Plan.

PROJECT SCHEDULE

Project construction is expected to commence in second quarter 2013. Construction of the Project is anticipated to take just over 11 months to complete.

Construction of the Project would be implemented in several phases, without regard for sequence. The initial construction phase would include all proposed grading and construction of all proposed infrastructure improvements; the substation, switchgear yard, and operations and maintenance building; road construction; and, dedication of open space to satisfy mitigation requirements, along with installation of the solar panels on portions of the site. Subsequent phases would include installation of the solar panels on other undeveloped portions of the site, with County approval of a building permit for each phase of installation. Overall grading is estimated at a 14-week duration; trenching is estimated at a 4-week duration; and, building construction and PV/CPV construction is estimated at a 30-week duration, totaling approximately 11 months.

OPERATION, SECURITY, AND MAINTENANCE

The facilities would be monitored remotely. Once the solar panels are installed, the panels would operate during daylight hours, seven days per week, and 365 days per year. Security would be

maintained through installation of a 6-foot high chain-link fence that would include one foot of two-strand barbed wire along the perimeter of the MUP areas. As the site is located within an area subject to floodwater flows during high-intensity rain events in the region, break-away fencing would be installed along Project boundaries where fencing would be non-parallel to the direction of flow to ensure that the proposed development does not obstruct or inhibit floodwaters. A secured gate would be provided off of the main access drive from Split Mountain Road at the southwest corner of the MUP area. The gate would meet County Fire Code Section 96.1.503.6 for automatic operation with battery back-up. The gate would open immediately upon emergency vehicle strobe light activation from either direction of approach and would include a Knox-box key-operation. Additionally, a switch would be installed inside of the entrance gate to the site to allow authorized Project personnel and emergency service providers to automatically place the solar panels in a stow position in the event of an emergency or high winds (applicable to the Dual-Axis Tracker System and the Dual-Axis Tracker Units technologies, which allow for panel rotation).

Additionally, to reduce the potential risk of wildfire, construction of the proposed operations and maintenance building and the control house (located adjacent to the substation) would include installation of an interior fire suppression system (fire sprinkler system for the operations and maintenance building and a clean agent system for the control room). Installation would occur consistent with applicable National Fire Protection Association (NFPA) Code No. 13 standards (*Standard for the Installation of Sprinkler Systems*).It is anticipated that maintenance of the facilities would require occasional visual inspections and minor repairs. Overall, minimal maintenance requirements are anticipated, as the panels would operate on their own with little human involvement required. On intermittent occasions, the presence of several workers may be required if major repairs or replacement of equipment is required; however, due to the nature of the facilities, such actions are anticipated to be infrequent. Occasional equipment replacement or refurbishing may also be conducted.

To allow for ongoing maintenance, the solar panels would be washed an estimated four times per year. Water with a binding agent would also be applied once every year for dust suppression purposes on the onsite roadways. A new onsite well is proposed in the southern portion of the development area to supply water for maintenance purposes. Testing to date has indicated that onsite groundwater supplies are adequate to support a portion of the anticipated water demands for Project. Alternatively, a portion of the water may be trucked in from a local water source to wash the solar panels via a commercial vendor or for dust suppression. Therefore, connection to a public water system is not proposed or required with the Project.

DECOMMISSIONING AND REPOWERING

The anticipated lifespan of the proposed solar facility is estimated to be 30 years or longer. At the end of the useful life of the Project, two alternative scenarios are possible: (1) Re-tool the technology and contract to sell energy to a utility; or, (2) If no other buyer of the energy emerges, the solar facility can be decommissioned and dismantled. This discussion herein only addresses the decommissioning and dismantling of the facility and reuse of the land.

Decommissioning and Recycling

Decommissioning would first involve removing the solar CPV/PV modules for sale into a secondary solar module market. The Project's module component materials do not have toxic metals such as mercury, lead, or cadmium telluride; however, each CPV/PV module contains solar cells that contain a trace amount of gallium arsenide (less than 2.5% of the entire cell) that can be safely removed and properly disposed of offsite when the panels are recycled.

The majority of the components of the solar installation are made of materials that can be readily recycled. Electrical equipment such as the inverters, transformers, and switchgear can be either reused or their components recycled. The equipment pads are made from concrete which can be crushed and recycled. Underground cables and wires can be removed by opening trenches, pulling up the cables and wires, and backfilling when done. The electrical wiring is made from copper and/or aluminum and can be reused or recycled.

Dismantling

Dismantling the Project would entail disassembly of the solar facilities and substantive restoration of the site. Impacts associated with closure and decommissioning of the Project site would be temporary and would span three basic activities: (1) disassembly and removal of all detachable above-ground elements of the installation; (2) removal of tracker masts and racking and any other structural elements, including those that penetrate the ground surface to a depth of two feet below grade; and, (3) reuse of the land consistent with the County Zoning Ordinance, which could include ground surface restoration to surrounding grade. The following are the steps needed to dismantle the Project components and return the Project site back to a conforming use:

1) The above-ground (detachable) equipment and structures would be disassembled and removed from the site. Detachable elements include (i) all trackers and racking, inverters, transformers, and electrical collection lines within the solar field; (ii) transformers, breakers, disconnects, bus work, control house within the Project substation; and, (iii) the Gen-tie lines. The majority of these materials can be recycled or reclaimed. Remaining materials would be limited and would be contained and disposed of offsite consistent with the County of San Diego Construction Demolition and Debris Management Plan (County Ordinance 68.508-68.518).

2) Removal of tracker masts and racking would entail vibration extraction if the masts were initially installed using conventional pile-driven techniques. For tracker masts and racking that were inserted into a hole and supported by concrete encasements, the masts and concrete would be removed to a depth of two or more feet. Any spread-foot foundations used for supporting electrical equipment on structures would be removed to a depth of two feet. The tracker masts and racking would be recycled and the concrete would be disposed of, or recycled, offsite.

3) Removal of underground collector and transmission cables and associated facilities would either be abandoned in place or removed as required.

4) The land would be returned to a use that is consistent with the County of San Diego Zoning Ordinance at the time of dismantling.

5) If a new use is not proposed, the decommissioning would include removal of all components down to a depth of two feet, applying a soil stabilization agent such as a non-toxic permeable soil binding agent. These activities would be consistent with the current zoning of General Rural (S92) or future applicable zoning.

Removal Surety

A final Decommissioning Plan would be provided prior to issuance of the building permits for the Project, and would comply with Section 6952.b.3 (d) of the County of San Diego Zoning Ordinance for removal surety as follows:

The operator shall provide a security in the form and amount determined by the Director to ensure removal of the Solar Energy System. The security shall be provided to the County's Department of Planning and Development Services (PDS) prior to building permit issuance. Once the Solar Energy System has been removed from the property, pursuant to a demolition permit to the satisfaction of the Director, the security may be released to the operator of the Solar Energy System.

Financial responsibility for decommissioning would be an obligation of the owner of the Project. There are several options to consider, but the preferred method would be for a specific amount of funding (the "Decommissioning Fund") to be set aside by the end of Year 25 in an amount equal to the estimated cost of decommissioning (the "Decommissioning Cost"), less the salvage value for equipment to be decommissioned and the sales proceeds from sale of the property once decommissioning is complete. Ideally, the cost of decommissioning should equal the amount of money gained from the scrap value and land value of the Project. If additional funds are needed, they would be provided by the owner of the Project and deposited into a dedicated account. Funds would be provided in an amount that would enable the sum of the Decommissioning Fund, salvage value, and land sales proceeds to cover the cost of decommissioning.

UTILITIES

Water

Construction

Water for construction would be provided via the proposed onsite well. Alternatively, water for construction may be provided via the existing onsite well or via water truck that would be filled at an offsite location and trucked to the site on an as-needed basis. Water would be used to support Project construction activities and for purposes of dust control.

Initial construction during the first several weeks would include brushing/clearing, trenching, post installation, and onsite access road construction. The remainder of the construction period would include racking, module and combiner installation; module wiring; and, final testing/commissioning, as appropriate to the type of solar technology selected. A permeable soil-binding agent would be applied during construction to stabilize onsite disturbed soils to reduce

fugitive dust. As shown in Table 2, *Total Estimated Water for Temporary Project Construction*, maximum total water demand for the construction phase is estimated to be 12.86 million gallons.

TABLE 2
TOTAL ESTIMATED WATER DEMAND FOR PROJECT CONSTRUCTION

Activity	Total Estimated Water Demand	Area Affected	Total Estimated Water Used (in Millions of Gallons)
Brushing/Clearing	4,000 gal/acre	338 acres	1.35
Grading	30 gal/cubic yard	370,000 cubic yards	11.1
Soil Binding (Roads)	3,300 gal/acre	51 acres (1 acre offsite/50 acres onsite)	0.17
Soil Binding (Land)	825 gal/acre	287 acres	0.24
Total Construction Water	**---**	**---**	**12.86 million gallons**

[1] One acre-foot (AF) = 325,851 gallons.

Operation

It is anticipated that the solar panels would be washed four times per year to remove dust particles and other buildup to ensure optimum solar absorption. As shown in Table 3, *Total Estimated Water Demand for Project Operation*, water required for panel washing would vary, based on the type of solar technology system used. Additionally, water would be used for maintenance of the onsite roadways for dust suppression purposes. As stated above, water used for maintenance purposes would be supplied by the proposed well, or alternatively, via the existing onsite well or via water trucked in from a local water source. Onsite groundwater supplies have been determined adequate to supply a portion of the anticipated Project demands. If it is determined that water from either the proposed or existing wells is too hard to be utilized for panel washing, a filtration system would be used to treat the water.

TABLE 3
TOTAL ESTIMATED WATER DEMAND FOR OPERATION & MAINTENANCE (ANNUAL)

Activity	Total Estimated Water Demand	Size/Unit	Total Estimated Water Used	Estimated Water Demand (gallons/year and AF/year)
Soil Binding / Dust Control	825 gallons/acre	338 acres	278,850 gallons	278,850 gal/yr or 0.85 AF/yr
Panel Washing				
Single-Axis Rack System	0.67 gallons/panel[1]	194,778 panels	130,501 gallons	522,004 gal/yr or 1.60 AF/yr
Dual-Axis Tracker Units	46.5 gallons/panel[2]	2,155 panels	100,207 gallons	400,830 gal/yr or 1.23 AF/yr
Fixed-Axis Rack system	0.51 gallons/panel[1]	339,372 panels	168,489 gallons	673,956 gal/yr or 2.06 AF/yr
Dual-Axis Rack System	30 gallons/panel[2]	2,979 panels	89,370gallons	357,480 gal/yr or 1.10 AF/yr

Note: One acre-foot (AF) = 325,851 gallons. Panels would be washed four times per year.
[1] Approximately one gallon of water/30 s.f. of panel
[2] Approximately one gallon of water/25 s.f. of panel

Storm Water / Drainage

A significant increase in storm water runoff or treatment needs from the areas affected by the Project is not anticipated to occur. Storm water runoff in areas where facilities would be installed would remain generally unchanged following construction. In addition, the solar panels and supporting structures would occupy a minimal building footprint on the affected properties and would not require or result in a significant change in existing conditions with regard to storm water runoff or treatment needs.

As applicable, storm water runoff and treatment would be adequately handled through the implementation of onsite best management practices (BMPs) and/or other design measures and would not result in or require significant changes to existing offsite storm drain facilities.

Other Utilities

The site would be unmanned and therefore, the Project would not require connection to a public sewer system; however, a septic system would be installed adjacent to the operations and maintenance building for use by staff performing routine maintenance at the site, when needed. Electric service is presently provided to the Project site. No natural gas service is provided. The proposed Project would generate electricity via the solar panels; the use of natural gas is not anticipated, and therefore, the extension of such services to the site is not required or proposed.

PUBLIC SERVICES

Fire Protection Services

The Project site is located within the San Diego County Fire Authority. The nearest responding station is the Ocotillo Wells Volunteer Fire Department (OWVFD), located at 5841 State Highway 78 in the community of Ocotillo Wells, approximately 6.75 miles to the northwest of the Project site. The station is staffed full-time with volunteer and career firefighters. Travel time to the Project site is approximately 15.6 minutes, per the National Fire Protection Association (NFPA). The Project site has a County of San Diego General Plan land use designation of RL-80 (Rural Lands).The General Plan does not identify a maximum travel time for emergency fire services response for the RL-80 land use designation.

The Project site is located within the County's Wildland Urban Interface area. As such, Project design provides for a 30-foot wide brush clearing zone (measured inward from the perimeter of the MUP boundary) to reduce the potential for wildfire to occur and/or spread. Water for fire protection purposes would be supplied by two proposed 10,000-gallon water storage tanks to be constructed onsite.

As requested by the County Department of Planning and Development Services, the applicant has prepared a Fire Protection Plan (FPP) Letter Report (available under separate cover) to address water supply, access, building ignition and fire resistance, fire protection systems and equipment and vegetation management with regard to fire code requirements. The FPP Letter Report shall meet all requirements of Article 86, Section 8601of the California Fire Code.

Additionally, as the Project would have the potential to result in additional demands on the OWVFD and/or other area emergency service providers, the Project will be conditioned to participate in the Community Facilities District (CFD) that is currently being created by the San Diego County Fire Authority (SDCFA). The Project applicant shall comply with all requirements of the CFD, as applicable, and once such specific requirements have been identified. Joining the CFD for fire protection services and payment of the required fees will ensure that fire protection services will be adequate to serve the Project, and that no significant cumulative effects occur as the result of Project implementation.

IMPERIAL IRRIGATION DISTRICT

R-Line

As stated above, energy generated by the Project with any of the four alternative technology systems would be transmitted to a private substation proposed in the northeast corner of the site, adjacent to an existing 92 kV "R-Line" that crosses the Project site. The Project would connect directly to the existing R-Line through a loop-in, pursuant to an interconnection agreement with the IID. The R-Line runs aboveground and ultimately connects to the existing San Felipe Substation, located approximately 2.1 miles to the northwest of the proposed point of interconnection. The connection would take place on the Project site, and the POI is

prominently shown on the MUP Plot Plans for all four of the potential technologies considered. No offsite impacts to the R-Line attributable to the proposed Project would occur.

El Centro Switching Station

The El Centro Switching Station (Station) is an existing facility located in the City of El Centro in Imperial County. The Sensitivity Study provided by IID for the Gildred Ocotillo Wells Solar Project (previously Gildred Solar), indicated that upgrades to the El Centro Switching Station would be required in order to accommodate the proposed Project. Minimal improvements to the Station would involve upgrades to a 250 mega-volt ampere (MVA) transformer. The improvements required for the upgrade would occur within the same development envelope of the existing Station and would consist of replacement of the older transformer. Therefore, no impacts to any sensitive habitat or other lands not already affected by the existing Station would result. The upgrade would occur as a part of a larger set of planned upgrades in which IID would act as the Lead Agency for environmental review in compliance with requirements of the California Environmental Quality Act (CEQA).

Ocotillo Airport

Ocotillo State Vehicular Recreational Area

Ocotillo Wells

SPLIT MOUNTAIN ROAD

SR 78

SAN DIEGO COUNTY

IMPERIAL COUNTY

Residential Uses

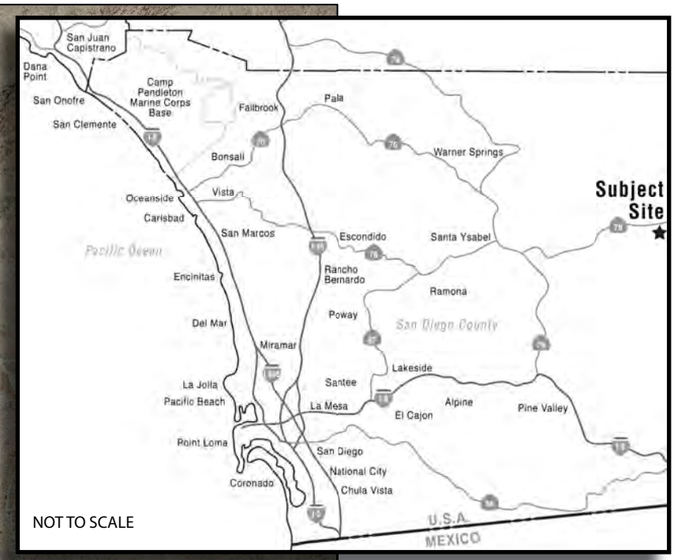
Agricultural Uses

San Felipe Substation

Anza-Borrego Desert State Park

Proposed Access

Anza-Borrego Desert State Park



LEGEND

- MUP Boundary
- Development Area
- County Line

0 0.5 1 2 Miles

N

Note: East and South sides of Parcel Boundary and Development Area lines overlap the County Line

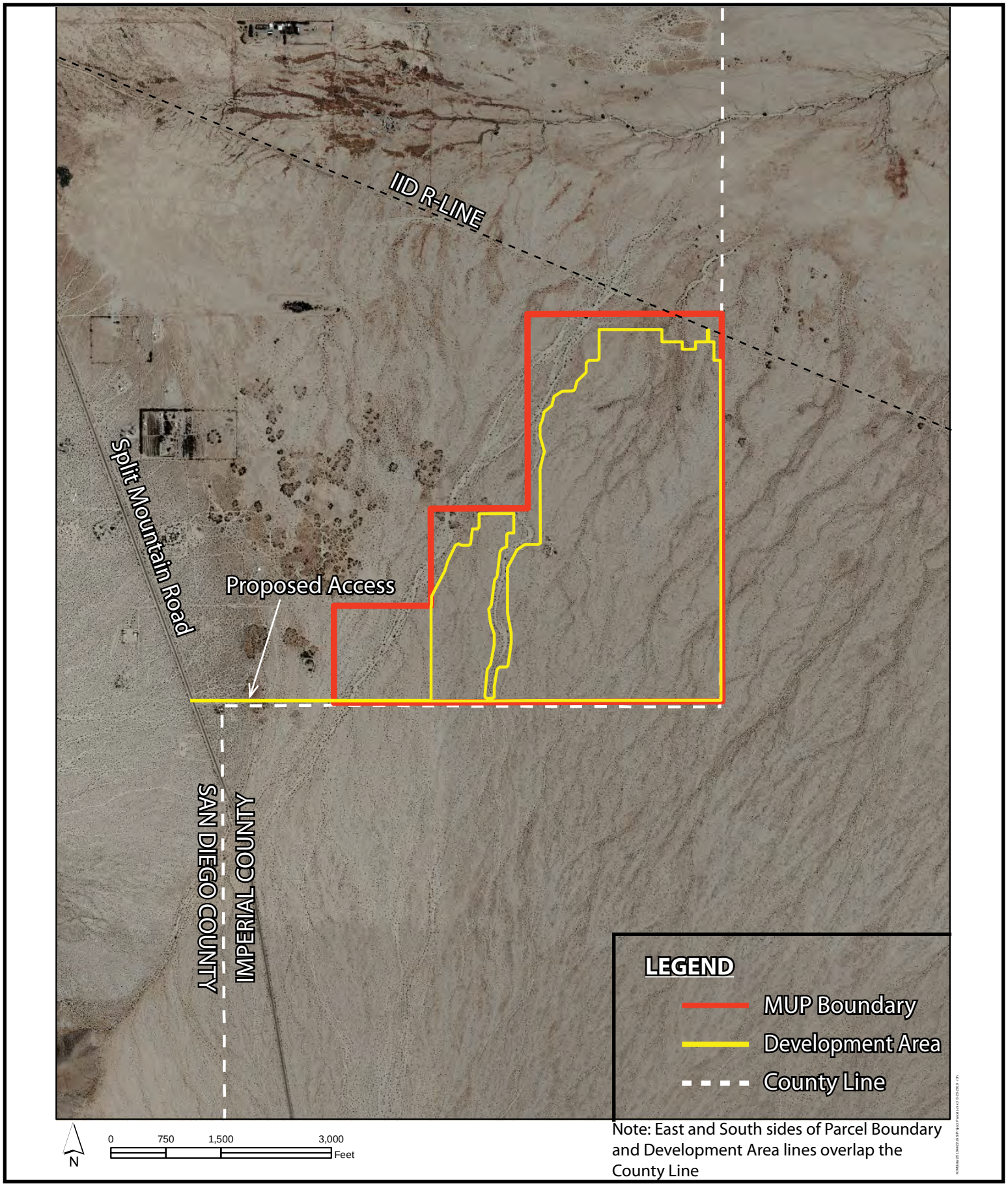
RBF CONSULTING

Source: National Agriculture Imagery Program (NAIP) 2010

OCOTILLO WELLS SOLAR

REGIONAL/LOCAL VICINITY MAP

Figure 1



Note: East and South sides of Parcel Boundary and Development Area lines overlap the County Line

RBF CONSULTING

Source: National Agriculture Imagery Program (NAIP) 2010

OCOTILLO WELLS SOLAR

AERIAL PHOTOGRAPH

Figure 2

NOTES

1. GROSS AREA: 440.53 AC ACRES
2. DEVELOPMENT AREA: 338.10 ACRES
3. GENERAL PLAN: RURAL LAND (RL80)
4. REGIONAL CATEGORY: RURAL LANDS
5. TOPOGRAPHIC SOURCE: VERTICAL MAPPING, FLOWN 4/20/2011
6. ASSOCIATED REQUESTS: NONE
7. THE APPROVAL OF THIS MAJOR USE PERMIT (MUP) AUTHORIZES THE FOLLOWING: CONSTRUCTION, OPERATION, AND MAINTENANCE OF A PHOTOVOLTAIC SOLAR FARM PURSUIT TO SECTION 6952 OF THE SAN DIEGO COUNTY ZONING ORDINANCE.
8. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.
9. ALL BUILDINGS TO BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS (CONCRETE, BLOCK, METAL) OR SIMILAR.
10. NO LANDSCAPING PROPOSED.
11. LIGHTING FOR MAINTENANCE AND SECURITY PROPOSES ONLY. SHIELDED LIGHTING LOCATED AT GATES AND SUBSTATION BUILDING AND SHALL CONFORM TO COUNTY OF SAN DIEGO OUTDOOR LIGHTING REQUIREMENTS. SEE DETAIL ON SHEET 6.
12. PHASING - PROJECT WILL BE IMPLEMENTED IN SEVERAL PHASES WITHOUT REGARD TO SEQUENCE.
13. ALL DISTURBED AREAS WOULD BE COVERED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
14. SEE PRELIMINARY GRADING PLAN FOR PROPOSED GRADING.
15. ONLY SMALL DIRECTIONAL, LIMITS OF OPEN SPACE AND SAFETY SIGNAGE ARE PROPOSED.
16. NO DEVELOPMENT WILL OCCUR IN THE AREAS IDENTIFIED ON THE PLOT PLAN AS "OPEN SPACE".
17. SEE PLOT PLANS FOR LEGEND.
18. THE ENTIRE SITE IS SUBJECT TO INUNDATION BY THE 100-YEAR FLOOD AND IS WITHIN FEMA MAP NO. 06073C0675F THE LIMITS OF THE 100-YEAR FLOOD ALONG THE WATERCOURSE WHICH FLOWS THROUGH THE PROPERTY.
19. SITE ACCESS GATE(S) TO BE EQUIPPED WITH FIRE DEPARTMENT APPROVED STROBE LIGHT ACTIVATION AND KNOX KEY-OPERATED SWITCH.
20. SOLAR RELATED FACILITIES (PANELS, RACKING, ELECTRICAL CONNECTIONS, INVERTER/TRANSFORMER PADS, O&M BUILDING, CONTROL ROOM, EMERGENCY GENERATOR, SUBSTATION, SWITCHGEAR YARD, FENCING, AND INTERNAL ACCESS, ETC.) SHOWN ON THE PLOT PLAN MAY BE RELOCATED, RECONFIGURED, AND/OR RESIZED WITHIN THE SOLAR FACILITY DEVELOPMENT AREA (EXCLUSIVE OF THE OPEN SPACE AREAS) WITH THE ADMINISTRATIVE APPROVAL OF THE DIRECTOR OF DPLU WHEN FOUND IN CONFORMANCE WITH THE INTENT AND CONDITIONS OF PERMIT'S APPROVAL. TRANSFORMER/INVERTER/GENERATOR LOCATIONS CAN BE RELOCATED/RECONFIGURED WITHOUT REQUIREMENT OF MINOR DEVIATION. THE TRANSFORMER/INVERTER/GENORATOR MUST COMPLY WITH THE NOISE ORDINANCE AND MUST BE ELEVATED 1' ABOVE FLOOD ELEVATION. THE 24' FIRE ACCESS ROAD WIDTHS MAYBE REDUCED ADMINISTRATELY WITH THE APPROVAL OF THE COUNTY AND FIRE AUTHORITY HAVING JURISDICTION OVER THE PROJECT.
21. PROVIDE OVERRIDE SWITCH CONTROL NEAR MAIN ENTRY TO ALLOW FIRE DEPARTMENT TO MOVE TRACKERS INTO STOW POSITION.

EXISTING EASEMENTS

	DESCRIPTION	DISPOSITION
(A)	ACCESS EASEMENT - BOY SCOUTS OF AMERICA	TO REMAIN
(B)	ACCESS EASEMENT - GILDRED BUILDING CO.	TO QUITCLAIM
(C)	20' PUBLIC HIGHWAY EASEMENT	TO REMAIN
(D)	20' PUBLIC HIGHWAY EASEMENT	TO REMAIN
(E)	40' PRIVATE ACCESS/UTILITY EASEMENT	TO REMAIN

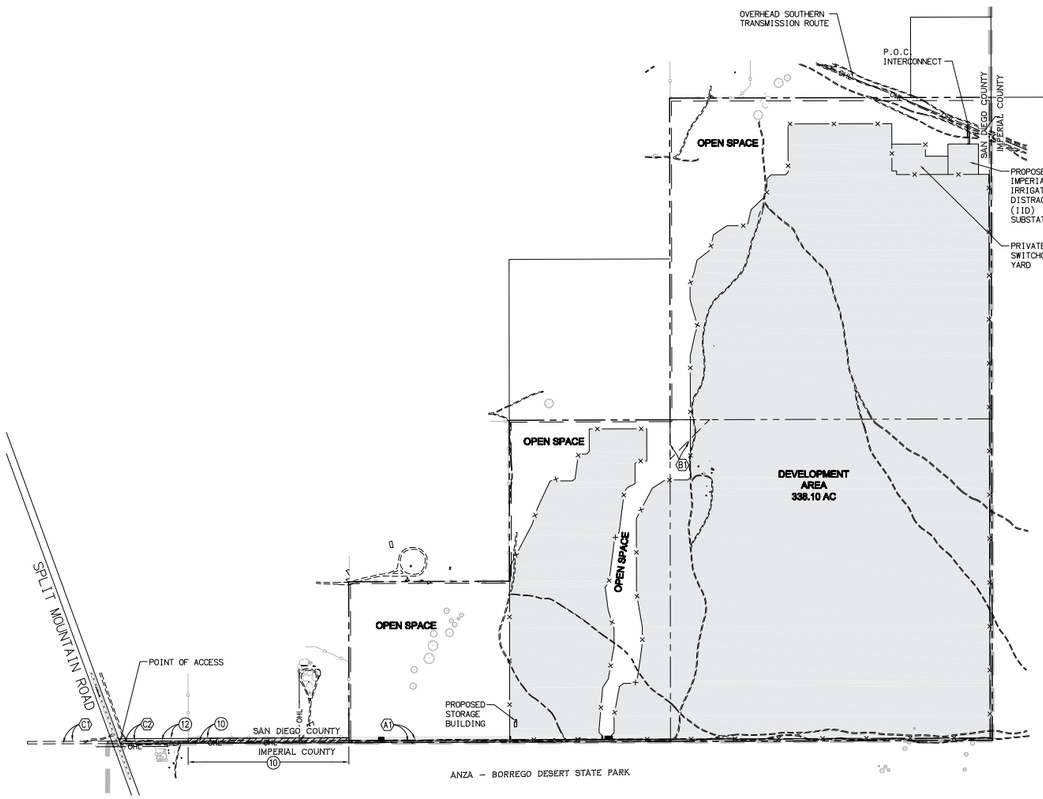
○ BASED ON DATA FROM PRELIMINARY TITLE REPORT BY CHICAGO TITLE COMPANY, ORDER NO. 930015382-U50, DATED JULY 29, 2009.

RECORDED EASEMENTS

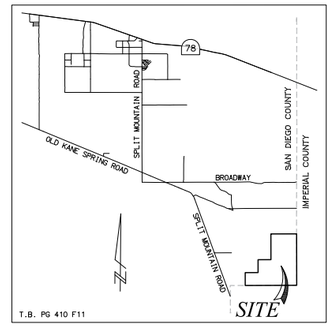
	DESCRIPTION
(W)	40' PRIVATE ACCESS/UTILITY EASEMENT - 2010-0512253
(T)	20' PRIVATE ACCESS/UTILITY EASEMENT - 2012-0230125

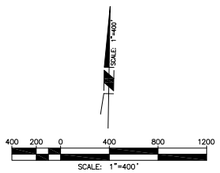
EXISTING ZONING (NO CHANGE)

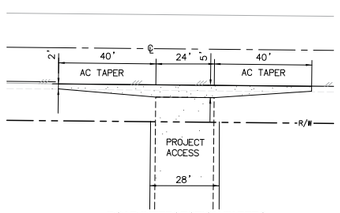
ZONE	APN: 253-390-57&58
USE REGULATIONS	S92
NEIGHBORHOOD REGULATIONS	W
DEVELOPMENT REGULATIONS: DENSITY	---
DEVELOPMENT REGULATIONS: LOT SIZE	8AC
DEVELOPMENT REGULATIONS: BUILDING TYPE	C
DEVELOPMENT REGULATIONS: MAXIMUM FLOOR AREA	---
DEVELOPMENT REGULATIONS: FLOOR AREA RATIO	---
DEVELOPMENT REGULATIONS: HEIGHT	G
DEVELOPMENT REGULATIONS: LOT COVERAGE	---
DEVELOPMENT REGULATIONS: SETBACK	D
DEVELOPMENT REGULATIONS: OPEN SPACE	---
SPECIAL AREA REGULATIONS	---



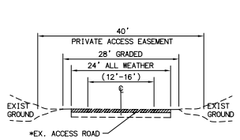
PROJECT SITE & SURROUNDINGS
SCALE: 1"=400'





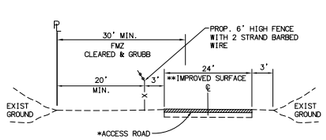


ROAD INTERSECTION TAPERS
N.T.S.



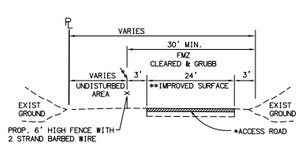
PRIMARY ACCESS ROAD / EASEMENT
NOT TO SCALE

* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.



TYPICAL SECTION
PERIMETER FIRE ACCESS ROAD
(ALONG EAST & SOUTH PROPERTY BOUNDARY)
NOT TO SCALE

* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.
**TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.



TYPICAL SECTION
PERIMETER FIRE ACCESS ROAD
(ADJACENT TO UNDISTURBED AREA)
NOT TO SCALE

* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.
**TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.

ASSESSOR PARCEL NUMBER

253-390-57 253-390-58

LEGAL DESCRIPTION

THE SOUTHEAST QUARTER OF SECTION 36, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 12 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM (NAD83) ZONE 6, BASED LOCALLY UPON THE FOLLOWING CORS STATIONS PH P487, PH P488 & PH USGC AS PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER

BENCHMARK

ELEVATIONS AS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF1988 (NAVD88) PER NGS DATA SHEETS DX0333, DX0335, & DX0338 BASED LOCALLY UPON THE FOLLOWING NGS BENCH MARKS. (NGS ELEVATIONS DERIVED FROM USING VERTCON TO CONVERT FROM NGVD29)

BM H 579 = 28.30 DATUM: NAVD88
BM K 579 = 28.30 DATUM: NAVD88
BM M 579 = 28.30 DATUM: NAVD88

APPLICANT

GILDRED BUILDING COMPANY
550 WEST C STREET, SUITE 1820
SAN DIEGO, CA 92101
(619) 683-5544
CONTACT: RICH GEISLER

SHEET INDEX

OCOTILLO WELLS SOLAR
COUNTY OF SAN DIEGO, CA
MAJOR USE PERMIT
3300-12-004 (MUP) 3912-12-12-001 (ER)

TITLE SHEET

MARCH 1, 2013
SHEET 1 OF 6

RBF CONSULTING

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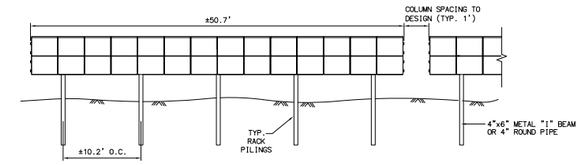
RBF CONSULTING

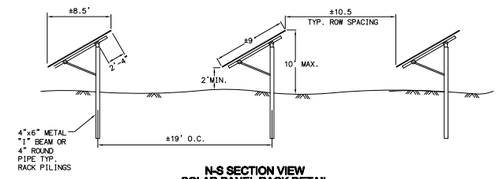
OCOTILLO WELLS SOLAR

MAJOR USE PERMIT PLOT PLAN

Figure 3A

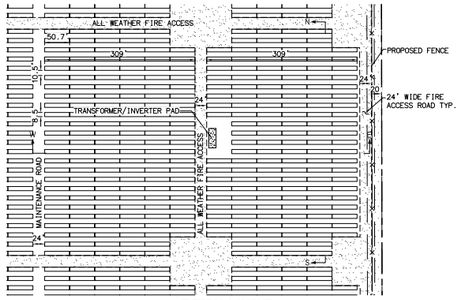


E-W ELEVATION VIEW
SOLAR PANEL RACK DETAIL
N.T.S.

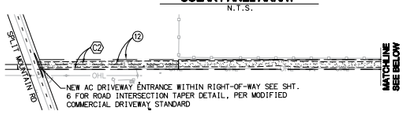


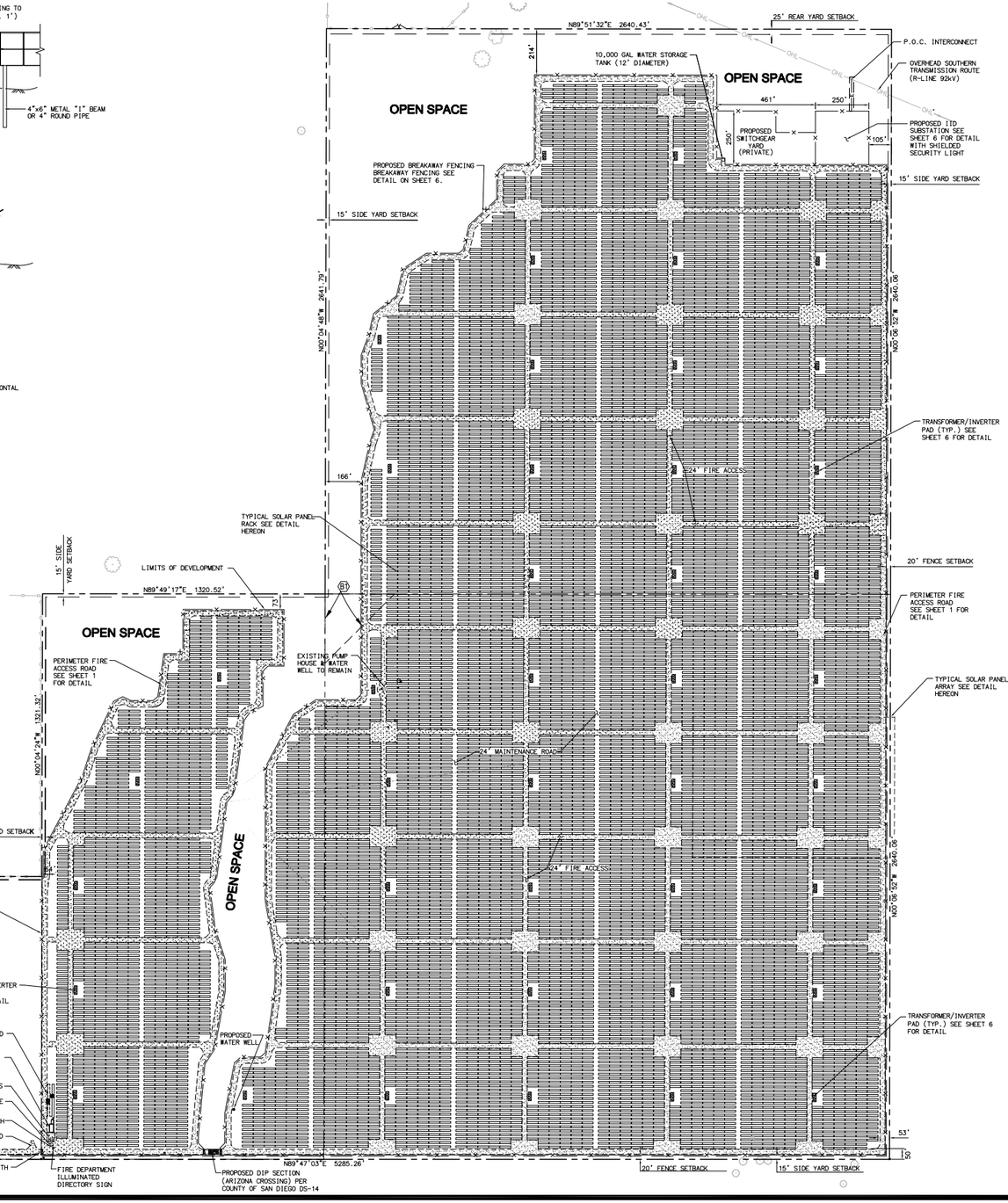
N-S SECTION VIEW
SOLAR PANEL RACK DETAIL
N.T.S.

- DEPTH / TYPE OF FOOTING TO BE DETERMINED BY STRUCTURAL ENGINEER.
- ALL SOLAR PANELS (AT MAXIMUM TILT) SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.



TYPICAL LAYOUT
SOLAR PANEL ARRAY
N.T.S.





LEGEND:

PROPERTY BOUNDARY/MAJOR USE PERMIT BOUNDARY	
EXISTING EASEMENT	
ZONING ORD. SETBACK LINE	
EXISTING FENCE	
PROP. 6' CHAIN-LINK FENCE WITH 2 STRAND BARBED WIRE	—X—X—
PROPOSED ACCESS GATE	GATE
PROP. 24' FIRE ACCESS ROAD-ALL WEATHER 10% MAX. SLOPE	
PROPOSED INTERCONNECTION	—E—E—
EXISTING OVERHEAD POWERLINE	
EXISTING POWER POLE	
PROP. EQUIPMENT PAD (42)	INSET
PROPOSED PV PANEL (330,372)	
FIRE DEPARTMENT ILLUMINATED DIRECTORY SIGN	
EXISTING WATER WELL	
PROPOSE WATER WELL	

200 100 0 200 400 600
SCALE: 1"=200'

OCOTILLO WELLS SOLAR
COUNTY OF SAN DIEGO, CA
MAJOR USE PERMIT
3300-12-004 (MUP) 3912-12-12-001 (ER)
FIXED AXIS RACK SYSTEM
PLOT PLAN
MARCH 1, 2013
SHEET 2 OF 6

RBF CONSULTING

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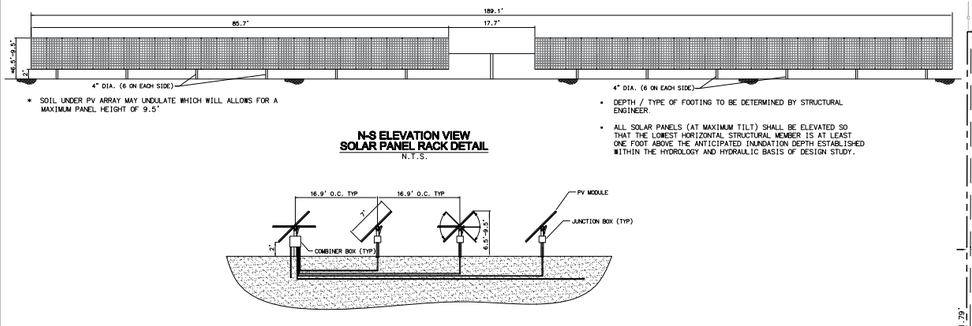
RBF CONSULTING

OCOTILLO WELLS SOLAR

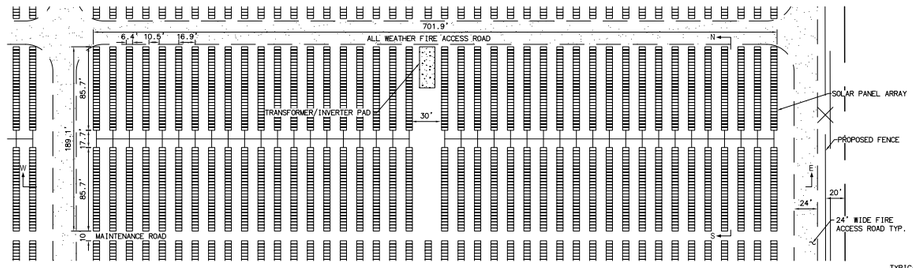
MAJOR USE PERMIT PLOT PLAN - Fixed Axis Rack System

Figure 3B



N-S ELEVATION VIEW
SOLAR PANEL RACK DETAIL
N.T.S.

E-W SECTION VIEW
SOLAR PANEL RACK DETAIL
N.T.S.



TYPICAL LAYOUT
SOLAR PANEL ARRAY
N.T.S.

LEGEND:

- PROPERTY BOUNDARY/MAJOR USE PERMIT BOUNDARY
- EXISTING EASEMENT
- ZONING ORD. SETBACK LINE
- EXISTING FENCE
- PROP. 6' CHAINLINK FENCE WITH 2 STRAND BARBED WIRE
- PROPOSED ACCESS GATE (GATE)
- PROP. 24' FIRE ACCESS ROAD-ALL WEATHER 10% MAX. SLOPE
- PROPOSED INTERCONNECTION
- EXISTING OVERHEAD POWERLINE
- EXISTING POWER POLE
- PROP. EQUIPMENT PAD (43)
- PROPOSED PV PANEL (194,778)
- FIRE DEPARTMENT ILLUMINATED DIRECTORY SIGN
- EXISTING WATER WELL
- PROPOSED WATER WELL

OCOTILLO WELLS SOLAR
COUNTY OF SAN DIEGO, CA
MAJOR USE PERMIT
3300-12-004 (MUP) 3912-12-12-001 (ER)
SINGLE AXIS RACK SYSTEM PLOT PLAN
MARCH 1, 2013
SHEET 3 OF 6

RBF CONSULTING

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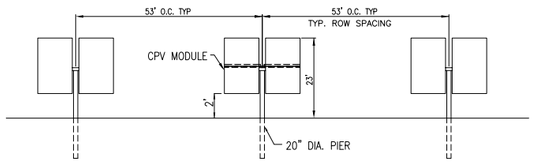
RBF CONSULTING

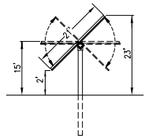
OCOTILLO WELLS SOLAR

MAJOR USE PERMIT PLOT PLAN - Single-Axis Rack System

Figure 3C

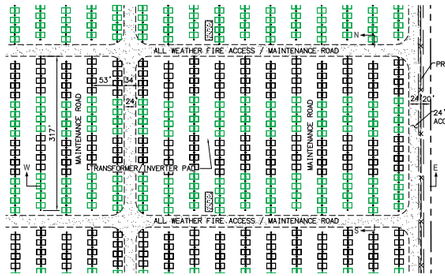


E-W ELEVATION VIEW
SOLAR PANEL RACK DETAIL
N.T.S.

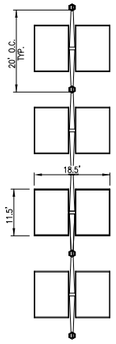


N-S SECTION VIEW
SOLAR PANEL RACK DETAIL
N.T.S.

- DEPTH / TYPE OF FOOTING TO BE DETERMINED BY STRUCTURAL ENGINEER.
- ALL SOLAR PANELS (AT MAXIMUM TILT) SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.



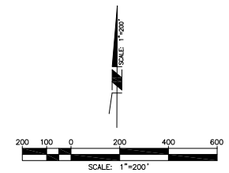
TYPICAL LAYOUT
SOLAR PANEL ARRAY
N.T.S.



PLAN VIEW
SOLAR PANEL RACK DETAIL
N.T.S.

LEGEND:

- PROPERTY BOUNDARY/MAJOR USE PERMIT BOUNDARY
- EXISTING EASEMENT
- ZONING ORD. SETBACK LINE
- EXISTING FENCE
- PROP. 6' CHAINLINK FENCE WITH 2 STRAND BARBED WIRE
- PROPOSED ACCESS GATE (GATE)
- PROP. 24' FIRE ACCESS ROAD-ALL WEATHER 10% MAX. SLOPE
- PROPOSED INTERCONNECTION
- EXISTING OVERHEAD POWERLINE
- EXISTING POWER POLE
- PROP. EQUIPMENT PAD (46) (XXP2)
- PROPOSED CPV ARRAY (2921)
- FIRE DEPARTMENT ILLUMINATED DIRECTORY SIGN
- EXISTING WATER WELL
- PROPOSED WATER WELL
- PROPOSED EMERGENCY GENERATOR 125kw (6) (12'X20' PAD)



OCOTILLO WELLS SOLAR
COUNTY OF SAN DIEGO, CA
MAJOR USE PERMIT
3300-12-004 (MUP) 3912-12-12-001 (ER)
DUAL AXIS RACK SYSTEM
PLOT PLAN

MARCH 1, 2013
SHEET 4 OF 6

RBF CONSULTING

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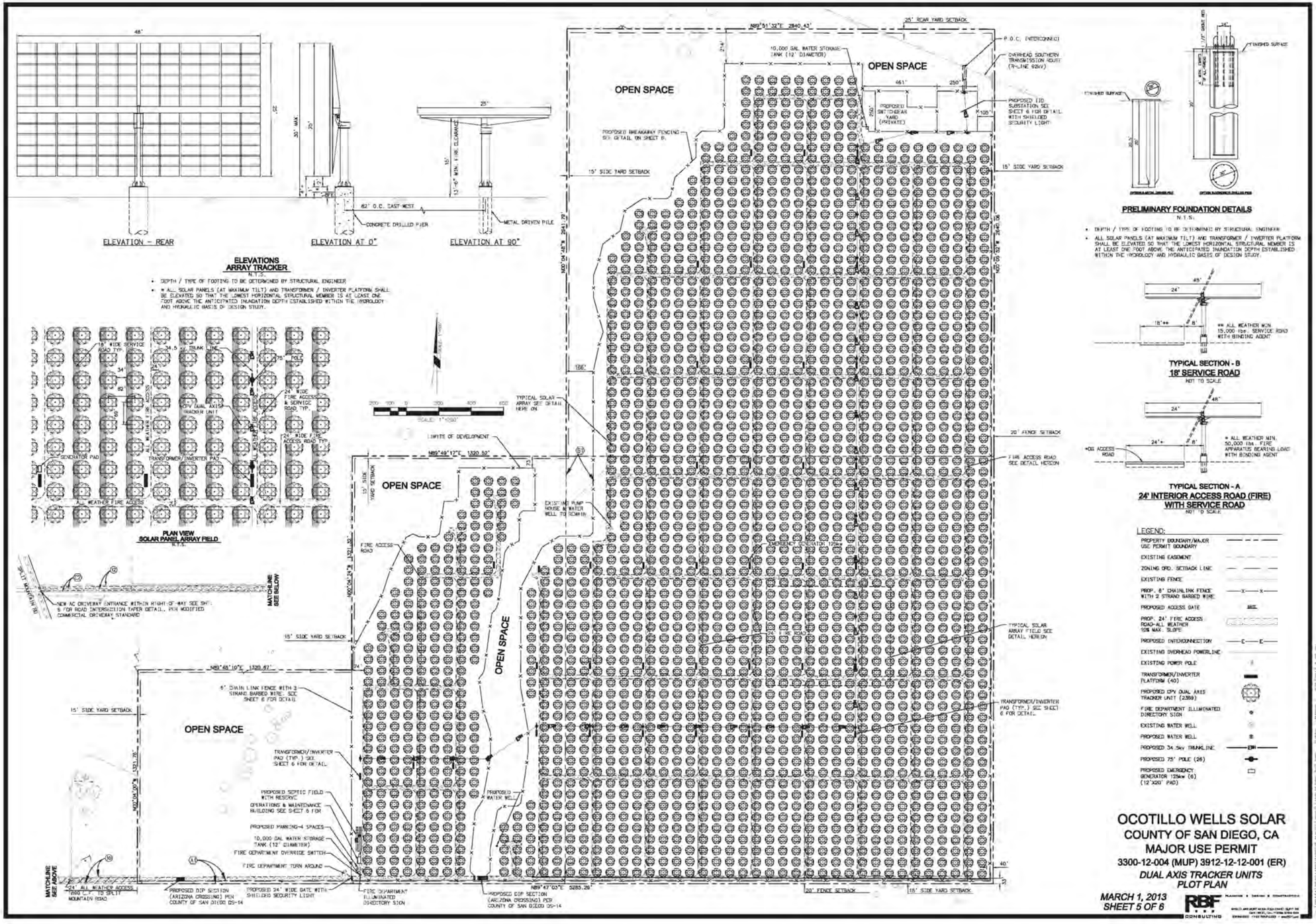
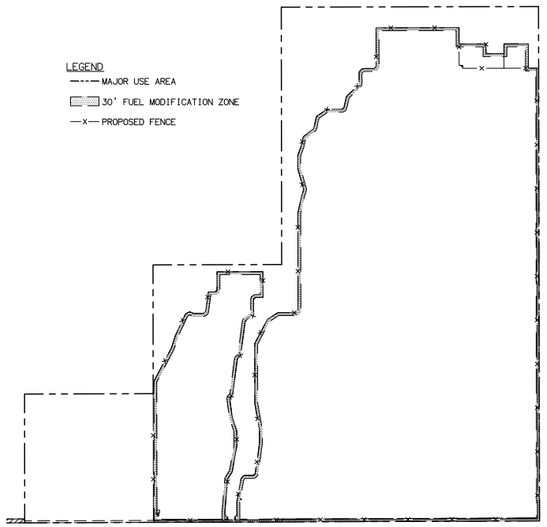
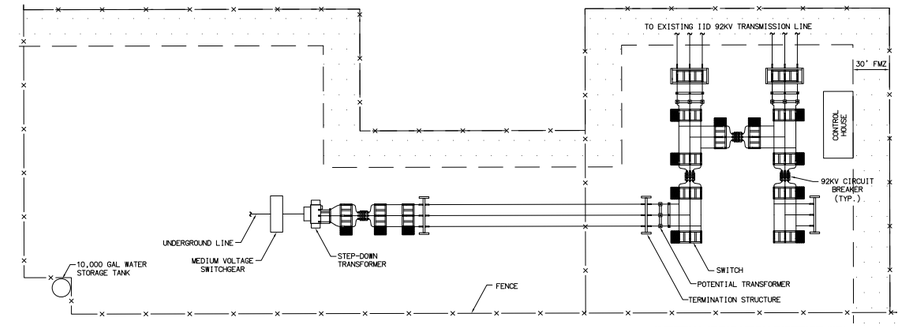

ELEVATION - REAR
ELEVATION AT 0°
ELEVATION AT 90°
62' O.C. EAST-WEST
CONCRETE DRILLED PIER
METAL DRIVEN PILE
ELEVATIONS
ARRAY TRACKER
N.T.S.
DEPTH / TYPE OF FOOTING TO BE DETERMINED BY STRUCTURAL ENGINEER
* ALL SOLAR PANELS (AT MAXIMUM TILT) AND TRANSFORMER / INVERTER PLATFORM SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.
PLAN VIEW
SOLAR PANEL ARRAY FIELD
N.T.S.
OPEN SPACE
N89°51'32"E 2640.43'
25' REAR YARD SETBACK
15,000 GAL WATER STORAGE TANK (12' DIAMETER)
P.O.C. (INTERCONNEC)
OVERHEAD SOUTHERN TRANSMISSION ROUTE (TR-LINE 92kV)
PROPOSED CPV DUAL AXIS TRACKER UNIT (2359)
PROPOSED TID SUBSTATION SEE SHEET 6 FOR DETAIL WITH SHIELDED SECURITY LIGHT
PROPOSED BREAKAWAY FENCING SEE DETAIL ON SHEET 6
15' SIDE YARD SETBACK
S00°04'48"E 2641.79'
TYPICAL SOLAR ARRAY SEE DETAIL HEREON
LIMITS OF DEVELOPMENT
N89°49'12"E 1320.52'
EXISTING PUMP HOUSE & WATER WELL TO REMAIN
FIRE ACCESS ROAD
EMERGENCY GENERATOR 125kW
N00°04'24"W 1321.32'
20' FENCE SETBACK
7 HR ACCESS ROAD SEE DETAIL HEREON
TYPICAL SOLAR ARRAY FIELD SEE DETAIL HEREON
TRANSFORMER/INVERTER PAD (TYP.) SEE SHEET 6 FOR DETAIL
NEW AC DRIVEWAY ENTRANCE WITHIN RIGHT-OF-WAY SEE SHT 6 FOR ROAD INTERSECTION TAPER DETAIL, PER MODIFIED COMMERCIAL DRIVEWAY STANDARD
MATCHLINE SEE BELOW
6' CHAIN LINK FENCE WITH 3 STRAND BARBED WIRE SEE SHEET 6 FOR DETAIL
N89°48'10"E 1320.67'
N00°04'00"W 1321.28'
TRANSFORMER/INVERTER PAD (TYP.) SEE SHEET 6 FOR DETAIL
PROPOSED SEPTIC FIELD WITH RESERVE
OPERATIONS & MAINTENANCE BUILDING SEE SHEET 6 FOR
PROPOSED PARKING-4 SPACES
10,000 GAL WATER STORAGE TANK (12' DIAMETER)
FIRE DEPARTMENT OVERRIDE SWITCH
FIRE DEPARTMENT TURN AROUND
PROPOSED WATER WELL
24' ALL WEATHER ACCESS ROAD S.D.C.R.D. TO SPLIT MOUNTAIN ROAD
PROPOSED DIP SECTION (ARIZONA CROSSING) PER COUNTY OF SAN DIEGO DS-14
PROPOSED 24' WIDE GATE WITH SHIELDED SECURITY LIGHT
FIRE DEPARTMENT ILLUMINATED DIRECTORY SIGN
PROPOSED DIP SECTION (ARIZONA CROSSING) PER COUNTY OF SAN DIEGO DS-14
N89°47'03"E 5285.28'
20' FENCE SETBACK
15' SIDE YARD SETBACK
40'
33'
PRELIMINARY FOUNDATION DETAILS
N.T.S.
DEPTH / TYPE OF FOOTING TO BE DETERMINED BY STRUCTURAL ENGINEER
ALL SOLAR PANELS (AT MAXIMUM TILT) AND TRANSFORMER / INVERTER PLATFORM SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.
FINISHED SURFACE
TYPICAL SECTION - B
18' SERVICE ROAD
NOT TO SCALE
** ALL WEATHER MIN. 15,000 lbs. SERVICE ROAD WITH BINDING AGENT
TYPICAL SECTION - A
24' INTERIOR ACCESS ROAD (FIRE) WITH SERVICE ROAD
NOT TO SCALE
* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT
LEGEND:
PROPERTY BOUNDARY/MAJOR USE PERMIT BOUNDARY
EXISTING EASEMENT
ZONING ORD. SETBACK LINE
EXISTING FENCE
PROP. 6' CHAINLINK FENCE WITH 2 STRAND BARBED WIRE
PROPOSED ACCESS GATE
PROP. 24' FIRE ACCESS ROAD-ALL WEATHER 10% MAX. SLOPE
PROPOSED INTERCONNECTION
EXISTING OVERHEAD POWERLINE
EXISTING POWER POLE
TRANSFORMER/INVERTER PLATFORM (40)
PROPOSED CPV DUAL AXIS TRACKER UNIT (2359)
FIRE DEPARTMENT ILLUMINATED DIRECTORY SIGN
EXISTING WATER WELL
PROPOSED WATER WELL
PROPOSED 34.5kv TRANSLINE
PROPOSED 75' POLE (26)
PROPOSED EMERGENCY GENERATOR 125kw (6) (12'X20' PAD)
OCOTILLO WELLS SOLAR
COUNTY OF SAN DIEGO, CA
MAJOR USE PERMIT
3300-12-004 (MUP) 3912-12-12-001 (ER)
DUAL AXIS TRACKER UNITS
PLOT PLAN
MARCH 1, 2013
SHEET 5 OF 6
RBF CONSULTING

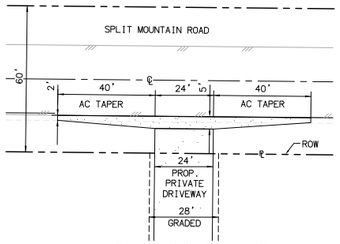


FUEL MODIFICATION ZONE
SCALE: 1"=500'

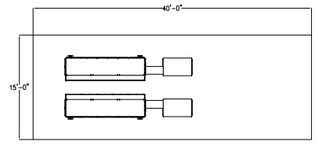


PRIVATE SWITCHGEAR YARD
N.T.S.

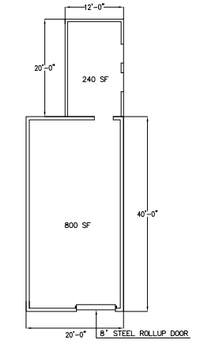
IMPERIAL IRRIGATION DISTRICT (IID) SUBSTATION
N.T.S.



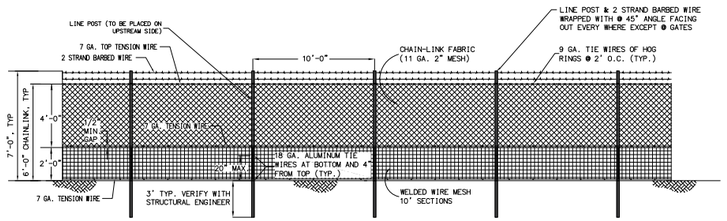
ROAD INTERSECTION TAPERS
N.T.S.



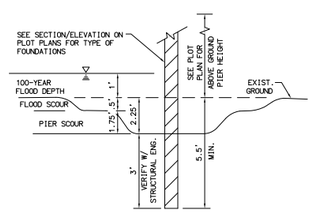
LAYOUT PLAN EQUIPMENT PAD
N.T.S.



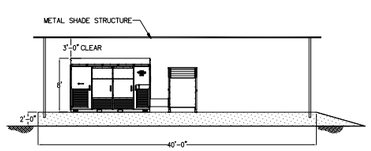
FLOOR PLAN
N.T.S.
TOTAL=1,040 SF



ELEVATION
BREAKAWAY FENCING DETAIL
N.T.S.

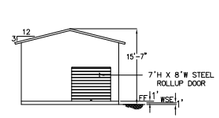


TYPICAL SECTION
PIER FOUNDATION DETAIL
N.T.S.

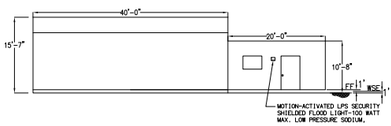


ELEVATION
EQUIPMENT PAD
N.T.S.

- ALL SOLAR PANELS (AT MAXIMUM TILT) AND EQUIPMENT PADS / SUB-STATION SHALL BE ELEVATED SO THAT THE LOWEST HORIZONTAL STRUCTURAL MEMBER/FINISH FLOOR IS AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.

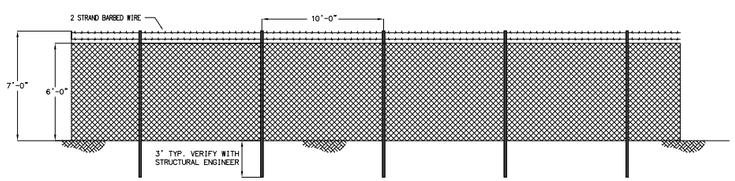


SOUTH ELEVATION
N.T.S.

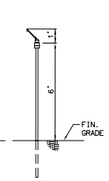


ELEVATION-OPERATIONS & MAINTENANCE BUILDING
N.T.S.

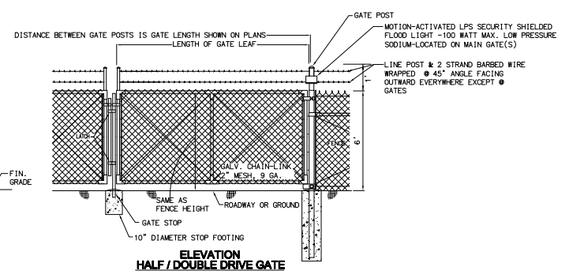
- FINISH FLOOR SHALL BE ELEVATED AT LEAST ONE FOOT ABOVE THE ANTICIPATED INUNDATION DEPTH ESTABLISHED WITHIN THE HYDROLOGY AND HYDRAULIC BASIS OF DESIGN STUDY.



ELEVATION
CHAINLINK FENCING
N.T.S.



SECTION
TYPICAL FENCE
6' CHAIN-LINKED FENCE WITH 2 STRAND BARBED WIRE



ELEVATION
HALF / DOUBLE DRIVE GATE
N.T.S.

OCOTILLO WELLS SOLAR
COUNTY OF SAN DIEGO, CA
MAJOR USE PERMIT
3300-12-004 (MUP) 3912-12-12-001 (ER)

ELEVATIONS/DETAILS

MARCH 1, 2013
SHEET 6 OF 6

RBF CONSULTING

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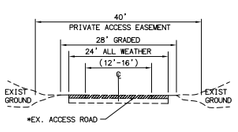
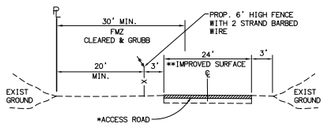


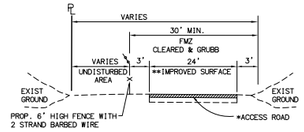
PRIMARY ACCESS ROAD / EASEMENT
NOT TO SCALE

* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.



TYPICAL SECTION
PERIMETER FIRE ACCESS ROAD
(ALONG EAST & SOUTH PROPERTY BOUNDARY)
NOT TO SCALE

* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.
**TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.



TYPICAL SECTION
PERIMETER FIRE ACCESS ROAD
(ADJACENT TO UNDISTURBED AREA)
NOT TO SCALE

* ALL WEATHER MIN. 50,000 lbs. FIRE APPARATUS BEARING LOAD WITH BINDING AGENT.
**TYPICAL LOCATION UNLESS SHOWN OTHERWISE ON SITE PLAN.

FIXED AXIS RACK SYSTEM IMPERVIOUS SURFACES TABLE

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD(15'x40')	42	25,200	SF
4" DIA. PIER	45,547	0.1	SF
WATER TANK, 10,000 GAL. 12' DIA.	2	800	SF
	TOTAL	92,040	SF

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC
TOTAL IMPERVIOUS AREA AFTER PROJECT : 2.11 AC

SINGLE AXIS RACK SYSTEM IMPERVIOUS SURFACES TABLE

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD(15'x40')	28	16,800	SF
4" DIA. PIER	45,547	0.1	SF
6" DIA. PIER	3600	0.2	SF
WATER TANK, 10,000 GAL. 12' DIA.	2	800	SF
	TOTAL	83,640	SF

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC
TOTAL IMPERVIOUS AREA AFTER PROJECT : 1.92 AC

DUAL AXIS RACK SYSTEM IMPERVIOUS SURFACES TABLE

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD(15'x40')	46	27,600	SF
20" DIA. PIER	12,286	26,783	SF
WATER TANK, 10,000 GAL. 12' DIA.	2	800	SF
	TOTAL	121,223	SF

TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC
TOTAL IMPERVIOUS AREA AFTER PROJECT : 2.78 AC

DUAL AXIS TRACKER UNITS IMPERVIOUS SURFACES TABLE

ITEM DESCRIPTION	#	TOTAL AREA	UNIT
SUBSTATION	1	25,000	SF
SWITCHGEAR YARD	1	40,000	SF
O & M BUILDING	1	1,040	SF
TRANSFORMER/INVERTER PAD(15'x40')	40	24,000	SF
24" DIA. PIER	2369	7439	SF
WATER TANK, 10,000 GAL. 12' DIA.	2	800	SF
	TOTAL	76,679	SF

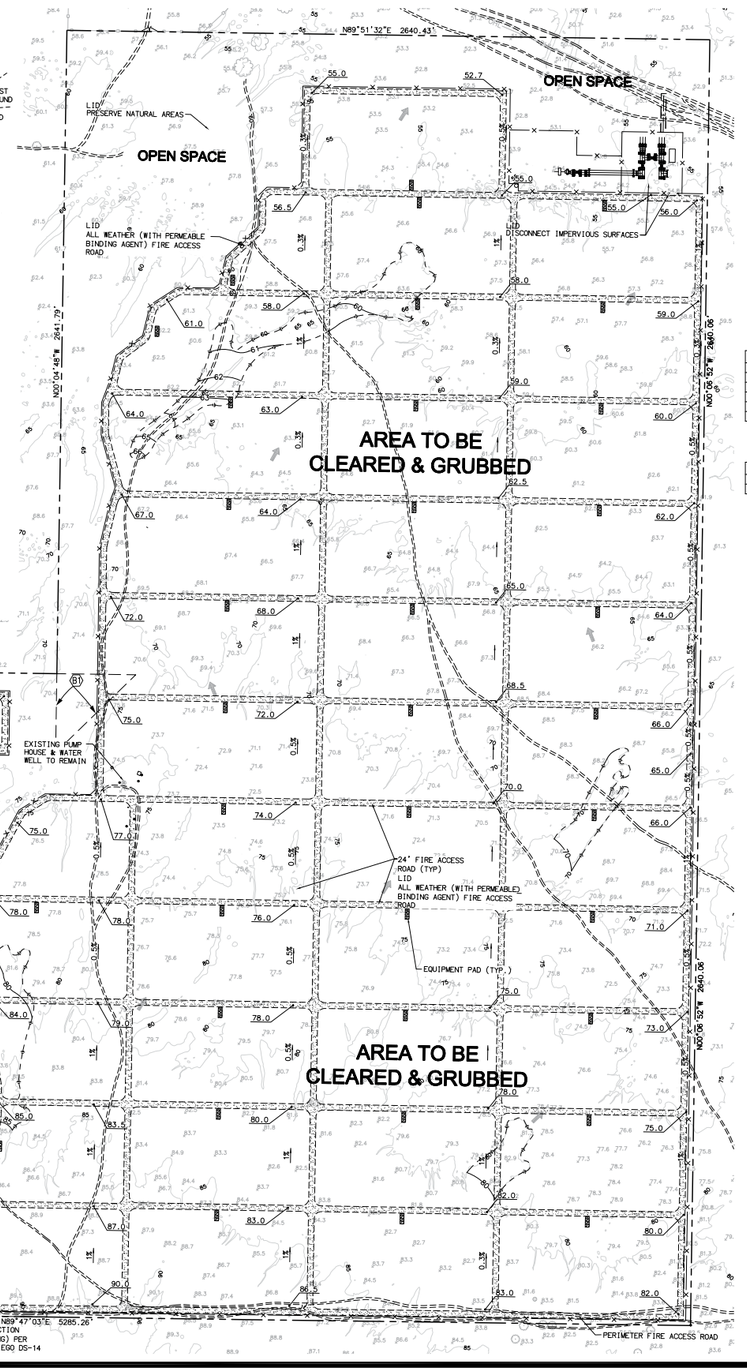
TOTAL IMPERVIOUS AREA BEFORE PROJECT: 0.04 AC
TOTAL IMPERVIOUS AREA AFTER PROJECT : 1.76 AC

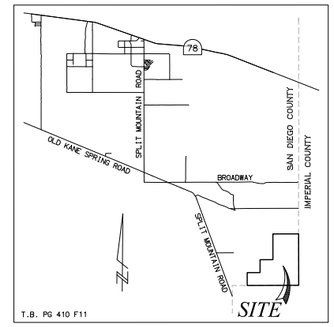
NOTES

1. GROSS AREA: 440.53 ACRES
2. DEVELOPMENT AREA: 338.10 ACRES
3. TOPOGRAPHIC SOURCE: VERTICAL MAPPING, 4/20/2011
4. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT OCCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.
5. PROPOSED SLOPE RATIOS: N/A
6. ALL DISTURBED AREAS WILL BE SURFACED WITH GRAVEL OR A BINDING AGENT TO REDUCE DUST.
7. AVERAGE SLOPE: 4.1% - NO RPO STEEP SLOPES ONSITE.
8. GRADING PLAN APPLIES TO ALL FOUR SOLAR TECHNOLOGY SYSTEM ALTERNATIVES INCLUDED IN THE MAJOR USE PERMIT APPLICATION. GRADING, ROADS AND EQUIPMENT PADS LOCATIONS ARE SHOWN AS TYPICAL.

LEGEND:

- PROPERTY BOUNDARY/MAJOR USE PERMIT BOUNDARY
- EXISTING EASEMENT
- EXISTING CONTOUR (75)
- EXISTING SPOT GRADE 74.7
- PROPOSED GRADING 75
- PROPOSED SPOT GRADE 59.0
- PROPOSED LIMITS OF GRADING
- EXISTING FENCE
- PROP. 6' CHAINLINK FENCE WITH 2 STRAND BARBED WIRE
- DIRECTION OF DRAINAGE FLOW 2%
- EXISTING ACCESS
- PROP. 24' FIRE ACCESS ROAD-ALL WEATHER 10% MAX. SLOPE
- PROPOSED EQUIPMENT PAD
- EXISTING OVERHEAD POWERLINE
- EXISTING POWER POLE
- EXISTING WATER WELL
- PROPOSED WATER WELL





EXISTING EASEMENTS

	DESCRIPTION	DISPOSITION
(A)	ACCESS EASEMENT - BOY SCOUTS OF AMERICA	TO REMAIN
(B)	ACCESS EASEMENT - GILDRED BUILDING CO.	TO QUITCLAIM
(C)	20' PUBLIC HIGHWAY EASEMENT	TO REMAIN
(D)	20' PUBLIC HIGHWAY EASEMENT	TO REMAIN
(E)	40' PRIVATE ACCESS/UTILITY EASEMENT	TO REMAIN

○ BASED ON DATA FROM PRELIMINARY TITLE REPORT BY CHICAGO TITLE COMPANY, ORDER NO. 930015382-U50, DATED JULY 29, 2009.

RECORDED EASEMENTS

	DESCRIPTION
(X)	40' PRIVATE ACCESS/UTILITY EASEMENT - 2010-0512253
(Y)	20' PRIVATE ACCESS/UTILITY EASEMENT - 2012-0230125

SUMMARY OF LID/SITE DESIGN BMPs

- PRESERVE NATURAL AREAS
- MINIMIZE DISTURBANCE TO NATURAL DRAINAGE AREAS
- MINIMIZE & DISCONNECT IMPERVIOUS SURFACES
- MINIMIZE SOIL COMPACTION
- UNMANNED FACILITY, PERSONNEL WILL ONLY BE ONSITE IN THE EVENT OF REQUIRED MAINTENANCE ACTIVITIES

SUMMARY OF SOURCE CONTROL BMPs

- EQUIPMENT CLEANING (SOLAR PANELS, NOT VEHICLES OR OTHER MECHANICAL EQUIPMENT) WILL BE TERMINATED PRIOR TO CAUSING RUNOFF
- BINDING AGENT TO ALL ACCESS ROADS AND ON ALL DISTURBED OR EXPOSED SURFACE AREAS

TOPOGRAPHY AND GRADING

VOLUME OF CUT: 370,000 CY
VOLUME OF FILL: 370,000 CY
EXPORT/IMPORT: 0 CY
GRADING QUANTITIES SHOWN ARE RAW CUT AND FILL VOLUMES.

MAXIMUM SITE RETAINING WALL HEIGHT: N/A
CUT SLOPE HEIGHT: N/A
FILL SLOPE HEIGHT: N/A

TOTAL DISTURBED AREA BEFORE PROJECT: 4.00 AC
TOTAL DISTURBED AREA AFTER PROJECT: 338.10 AC

ASSESSOR PARCEL NUMBER

253-390-57 253-390-58

LEGAL DESCRIPTION

THE SOUTHEAST QUARTER OF SECTION 36, THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE EAST HALF OF THE SOUTHWEST QUARTER AND THE NORTHEAST QUARTER OF SECTION 36, TOWNSHIP 12 SOUTH, RANGE 8 EAST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM (NAD83) ZONE 6, BASED LOCALLY UPON THE FOLLOWING CORS STATIONS PH P487, PH P488 & PH USGC AS PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER

BENCHMARK

ELEVATIONS AS SHOWN HEREON ARE IN TERMS OF THE NORTH AMERICAN VERTICAL DATUM OF1988 (NAVD88) PER NGS DATA SHEETS DX0333, DX0335, & DX0338 BASED LOCALLY UPON THE FOLLOWING NGS BENCH MARKS. (NGS ELEVATIONS DERIVED FROM USING VERTCON TO CONVERT FROM NGVD29)

BM H 579 = 28.30 DATUM: NAVD88
BM K 579 = 28.30 DATUM: NAVD88
BM M 579 = 28.30 DATUM: NAVD88

OWNER/APPLICANT

GILDRED BUILDING COMPANY
550 WEST C STREET, SUITE 1820
SAN DIEGO, CA 92101
(619) 683-5544
CONTACT: RICH GEISLER

OCOTILLO WELLS SOLAR
COUNTY OF SAN DIEGO, CA
PRELIMINARY GRADING PLAN
3300-12-004 (MUP) 3912-12-12-001 (ER)

MARCH 1, 2013
SHEET 1 OF 1

RBF CONSULTING

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RBF CONSULTING

OCOTILLO WELLS SOLAR

PRELIMINARY GRADING PLAN

Figure 4